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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,839	10/07/2003	Irena Maravic	080465	2991

23696 7590 09/17/2010

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EXAMINER	
PEREZ, JAMES M	
ART UNIT	PAPER NUMBER
2611	

NOTIFICATION DATE	DELIVERY MODE
09/17/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com

Advisory Action Before the Filing of an Appeal Brief	Application No.	Applicant(s)	
	10/680,839	MARAVIC ET AL.	
	Examiner	Art Unit	
	JAMES M. PEREZ	2611	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 23 August 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a) ☐ The period for reply expires _____months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *1-62*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

/David C. Payne/
Supervisory Patent Examiner, Art Unit 2611

/James M Perez/
Examiner, Art Unit 2611

Continuation of 11. does NOT place the application in condition for allowance because: The examiner would like to thank the applicant for acknowledging and accepting that Pedersen et al., Haga et al., and Pawelski teach that reducing the sampling frequency reduces power consumption of the processing elements (Remarks: page 20, lines 1-2), and furthermore that one of ordinary skill in the art would in fact be motivated to modify the primary reference Affes with the disclosure of Unser (sampling at the rate of innovation) in order to reduce the sampling frequency with respect to Affes since reducing the sampling frequency reduces power consumption (Remarks: page 20, lines 1-7 and lines 13-21). Respectfully, the knowledge generally available to one of ordinary skill in the art at the time of the invention is not limited to just reducing the sampling frequency in order to reduce the power consumption/dissipation of the processing elements. The cited references Pedersen et al., Haga et al., and Pawelski disclose more than just lowering the sampling frequency. Pedersen et al. discloses selecting an under-sampling factor for adjusting the under-sampling frequency/rate (paragraph 81: having a value between 2 to 8) and thus provides optimization of the sampling frequency not selecting the lowest possible sampling frequency. Pawelski discloses efforts to balance signal quality (which is directly dependent on the sampling rate/frequency) vs. cost which has led to sampling at sub-Nyquist frequencies (col. 1, lines 40-53 and col. 1, line 67 through col. 2, line 9). Haga et al. discloses an adaptive sampling rate which changes based on the quality of the channel (col. 4, lines 23-39 and col. 11, line 61 through col. 12, line 6: increased to improve precision (during bad channel quality) and decreased to reduce the operation speed of the processing elements thus reducing power consumption (during good channel quality)). Although the examiner believes that Pedersen et al., Haga et al., and Pawelski disclose the advantages of increasing, decreasing, and optimizing the sampling rate (thus providing the motivation and benefits for optimizing the sampling rate/frequency), the examiner will now provide further evidence that supports the prior art rejection. Gardenhire et al. (USPN 3,478,266) discloses a receiver which uses under-sampling where the benefits derived from the under-sampling are only valid if the sampling rate is sufficiently high that the distortion/interference produced by the aliasing effects are small (col. 2, lines 36-46: thus increasing the sampling rate decreases interference from aliasing when perform under-sampling. Furthermore, under-sampling, performance, complexity, small aliasing effects, where all of these concepts and motivations where known by "another" at least as early as Nov. 22nd 1966 (filing date of this patent)). McNeely (USPN 6,310,566) discloses, "[i]mportant objectives in sample rate converter design are: 1) maximizing performance including minimizing alias (i.e. interference) components in the Pass Band, and 2) minimizing complexity (e.g. measured in the number of adders required for an implementation). Normally performance and complexity are inversely related in sample rate converter design" (col. 2, lines 60-66) (emphasis added) (thus McNeely clearly provides evidence that balancing/optimizing performance (i.e. minimizing aliasing interference) and complexity (e.g. cost, power consumption, etc) are well-known and expect in the art before the application effective filing date). Looking teachings of Affes and Unser in a logical vacuum would motivate one skilled in the art to the implementation of a system which samples at the frequency/rate equal to either the chip rate or the rate of innovation as acknowledged by the applicant (Remarks – 8/23/2010: page 17: section B, last paragraph). However, the knowledge generally available to one of ordinary skill in the art at the time of the invention is also applicable when establishing obviousness for combining or modifying the teachings of the prior art to produce the claimed invention (See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and KSR International Co. v. Teleflex, Inc., 550 U.S. 398, 82 USPQ2d 1385 (2007). In the prior art rejection, the well-known modifications (and corresponding advantages) of adjusting a sampling frequency in the context of sub-sampling are knowledge generally available to one of ordinary skill in the art at the time of the invention which was used to establish the obviousness rejection. References Pedersen et al., Haga et al., Pawelski, Gardenhire et al., and McNeely are cited as evidence that one of orindary skill in the art at the time of the invention did indeed have access to the general knowledge (in the context of sub-sampling) that lowering a sampling frequency has the advantages of reduced processing speed and power dissipation while increasing the sampling frequency has the benefits of minimizing distortion due to aliasing. Thus, using the knowledge generally available to one of orindary skill in the art at the time of the invention it would have been obvious to modifying the combination of Affes (chip rate) and Unser (rate of innovation) to sample at a frequency between the two established thresholds (chip rate and rate of innovation) as claimed in order to yield predicable results and benefits. In other words, when one of orindary skill in the art at the time of the invention optimizes the sampling frequency/rate to be between the two established thresholds (chip rate and rate of innovation), one of ordinary skill in the art at the time of the invention would expected the benefits of reduced processing speed and power dissipation and minimized distortion due to aliasing when sampling between the chip rate and the rate of innovation (emphasis added). Clearly the dates of these teaching references show that these benefits are well-known and expected in the art at the time of the invention and also that these concepts and benefits are generally available at the time of the invention to one of ordinary skill in the art when the invention was made.